

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

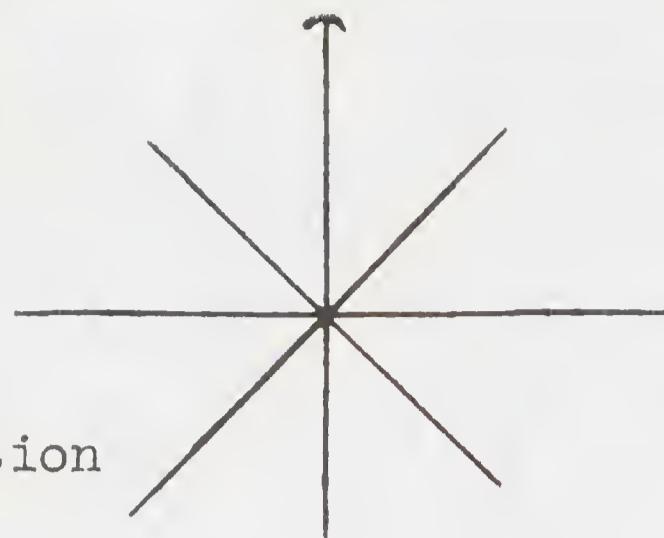
OBSERVERS:

Lewis  
DeLong  
Brownell

SPECIMEN  
or

Date 2 Dec 67  
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1000					Begin observations off Pt. Loma
03	Cal Gull	2-	an		Ad following
	Gull sp	4-	ee		"
12	Heermanns	1-	ca		Imm
14	Bonaparts	2-	S		
16	Br Pel	14-	N		
16	Coronavit	1-	E		
18	Br Pel	20-	N		
20	Bonaparts	1-	E		
22	Br Pel	8-	NW		
25	Gull sp	8-	ee		on H <sub>2</sub> O
27	Juager sp	1-	SW		
30	Br Pel	95-	N		
	Coronavit	2-	N		3 - together
31	Br Pel	125±25	NW		
32	Coronavit	15-	NW		
32	"	14-	NW		
33	Br Pel	70±10	NW		
33	" "	24-	NW		
33	Coronavit	20+	NW		
35	" "	2-	NW		
35	Br Pel	13-	NW		
36	" "	12-	NW		
39	" "	22-	NW		
39	Bonaparts	4-	S		
43					cal 5 sec in porpoising (1)
44	Br Pel	83-	NW		All Ad
45	Bonaparts	2-	S		
46	Br Pel	30-	NW		
51	Heermanns Gull	1-	ca		on H <sub>2</sub> O Ad
55	Cal Gull	1-	ee		Ad "
1100	Gull sp	15-	ee		
03	Bonaparts	2-	W		on H <sub>2</sub> O
06	Large Tern	2-	SW		Caspian, Royal -
10	Br Pel	60+			
	W. Gull	200±80-			
	Heermanns Gull	100±25-			
	Coronavit	2-			
	Loon sp	7-			
20	Sabins Gull	1-	ee		on Kelp
23	Binot. Gull	1-	ee		
24	Bonaparts Gull	1-	ee		
27	" "	1-	ee		
31	Coronavit	1-	ee		
37	Br Pel	11-	NW		
43	Gull sp	4-	ee		on H <sub>2</sub> O
50	Heermann Gull	2-	W		
52	Br Pel	6-	ee		on H <sub>2</sub> O
1200	"	2-	W		on H <sub>2</sub> O
1201	Heermann Gull	2-	W		
1205	Br Pel	1-			on H <sub>2</sub> O
10	"	7-			
23	"	1-	N		



Ship  
Direction

OBSERVERS:

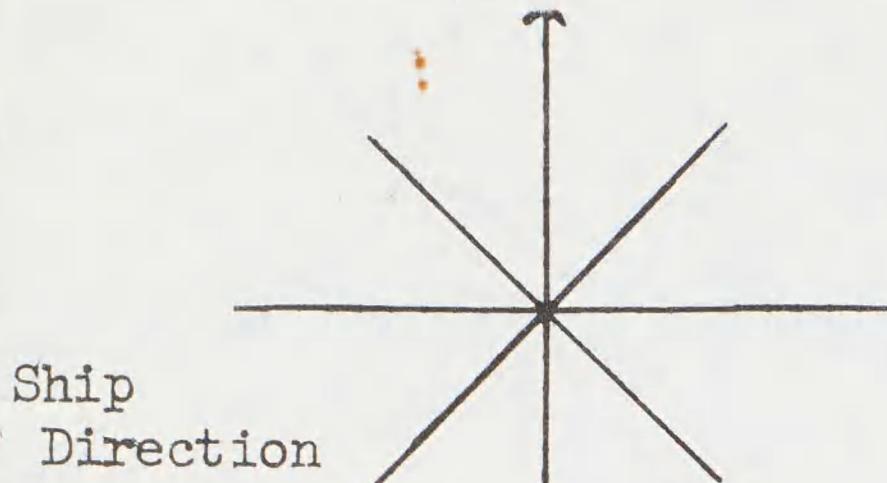
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or

Date 2 Dec. 1967  
Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1231	Br Pel	3-	N		
32	Cormorants	1-	S		
47	West. Gull	1-	N		
54					ADULT
1307	Herrman's Gull	1-	S		4-6 <u>Lagenorhynchus obliquirostris</u> TO THE EAST SWIM ACROSS BOW
1310	Gull spp.	30±10	ee		ALL TOOK BREATH SWIM SWIMMING ALONG ONLY A COUPLE OF FEET BELOW THE SURFACE - 2 SUBGROUPS. MAY HAVE BEEN FEEDING WHEN FIRST NOTED AS THEY WERE STATIONARY.
1310	Br Pel	10±2	ee		ALL ON H <sub>2</sub> O - FEEDING -
1320					SEA LION? - FEEDING? DIVING
1325	Br Pel	6-			ALL ON H <sub>2</sub> O - FEEDING
	Gull spp.	6-			SEA LION - FLOATING AT SURFACE WHEN FIRST NOTED - THEN SWAN TO EAST
27	Br Pel	1-	ee		ON H <sub>2</sub> O 3 together
29	"	1-	S		ON H <sub>2</sub> O - ADULT
35	Br Pel	12-	e		
	Herrman Gull	11-	ee		Feeding together on H <sub>2</sub> O
	Pel Cormorants	4-	ee		
39	Pom. Jaeger	1-	ee		Int Ad
	<sup>Parasitic Jaeger</sup>	2-	ee		
44	Fulmar	1-	ee		Being chased by Pom. Jaeger
49	Cathartes	1-	ee		on H <sub>2</sub> O Diving
50	Murru	1-	ee		
50	Parasitic Jaeger	1-	ee		
56	Common Murru	1-	ee		
58		1-			
1400	Common Murru	1-	ee		<u>Globicephala</u> sp. 40±10 in 3 or 4 subgroups - MORE OR LESS STATIONARY ON SURFACE - FEEDING? DURATION 30-45 second
02					MIXED AGES - CALF OR YOUNG - several adult male
05	Br Pel	15-	ee		cut seal skin purposely (1)
07	Small Albat	1-	N		
1430	Br. Pelican	14-			
	Large gull	6-			
	Gannets	1-			
1440	B				Zalophus - new - floating mostly
1500	B-L Kittiwake	1-	887		<u>Thalassarche</u>
1501	Puffin	1-			
1520					
1530					
1610					
1625	Pom. Jaeger	15-			Clare also. OBS. IS STARTED AGAIN <u>Globicephala</u> sp. 75±15 all noted were medium size range moving slowly south flank inline 4 or 5 subgroups ad. 14 p L



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Date 2/22  
Pg. # 3

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

1630	Bonapartis gull	1-			in
1633	Pengal	2-			121. 1t & 1m

EHS-18

3 Dec - Enter at Elm 1135

(West)

BFA - 2

3 (5-3)  
1 (5-2)

Phalarope 20

1 (21)  
4 (10)  
2 (4)6  
21  
115

Fulmar 5

1  
6

10 (all dark)

Sooty Shear 2

1 (1)

1 ✓

Pale-footed Shear 1

1 (3)

3

Rhin. Auk. 2

15 (15) 9 (9)

24 ✓

Herring gull 0

1 (1)  
25 (25) 3

1 ✓

Loom sp

1 (1)

28 ✓

WRSP

1 (1)

1 ✓

Blk-tumstone

1 (1)

1 ✓

B-L. Kittiwake

1 (1)

1 ✓

S. Lom Pet.

1 (1)

2 ✓

Gull sp

2 (2)

1 ✓

Pom. Gae

1 (1)

111

32

89 20

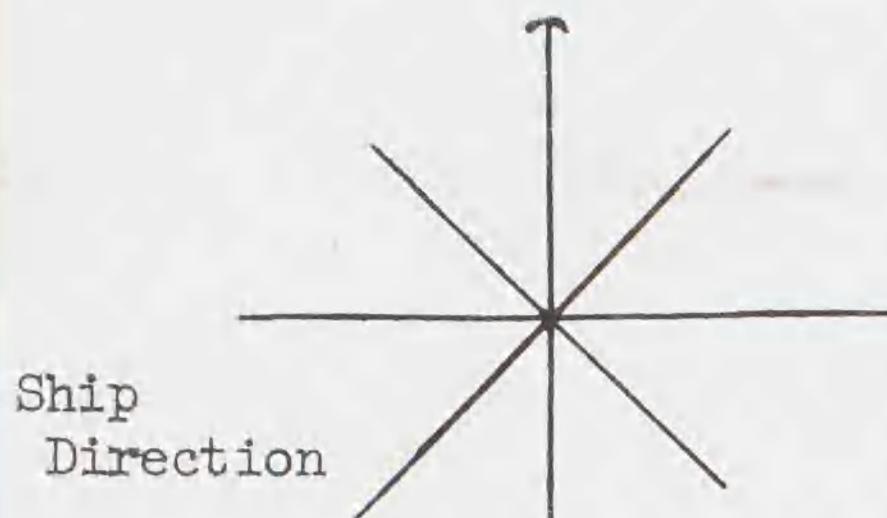
59  
32  
111

1/35-1515

Section 3

1515-1700

Section 2



Ship  
Direction

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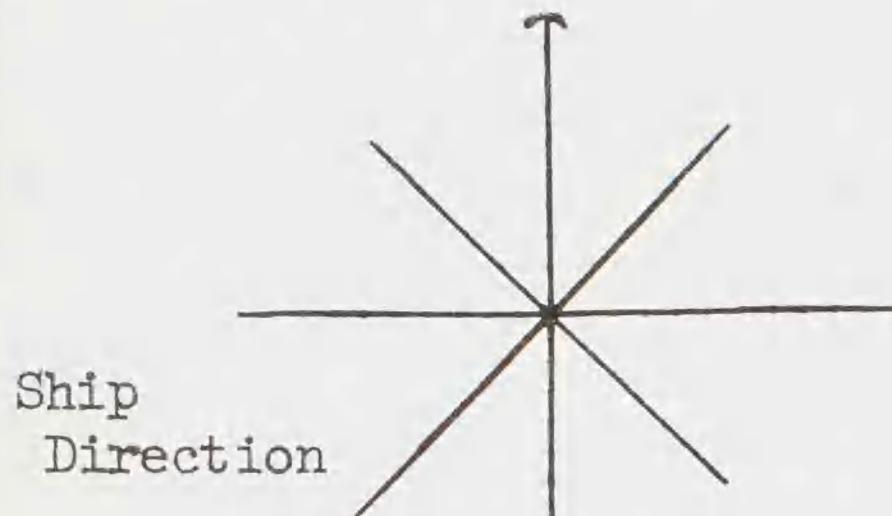
SPECIMEN  
or

S.R. - 186. Pt. Conception

Date 3 Dec 67  
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0651					sunrise Large swells light high overcast
52	W. Gulls H. Gulls Cal Gulls	-30			Following - all identified but do count of each species possible
0704	R. Phal	5			abt H2O winter plumage
14	Gulls sp	50			Same as above
14	Sooty Shear	1 -	88		
0720	Phalarope	2 -	S		
0722	Chimar	1 -	818		
0730					Pip-pipe (Dall - Rel 2) - <del>20</del> $\pm$ 5
					Waves came to a h.p. Pushed water ahead; finally dispersed.
0735					Dall Pip-pipe 15 $\pm$ 5 - just breaking water but making a streak c. 6-8 ft of white water with the birds as they surfaced.
0747	Phalarope	6 -	SW		Probable nests.
0750	New Zealand Buller/ Pale foot + Shore.	1 -	88		Stellar Sooty Tern - Bull - large. head straight out water - posit. of wings.
0755		1 -	88		for ab.
0800	Pomarine Jaeger	1 -			1 Rd, intermediate place.
0810	Phalarope	10-10	SW		



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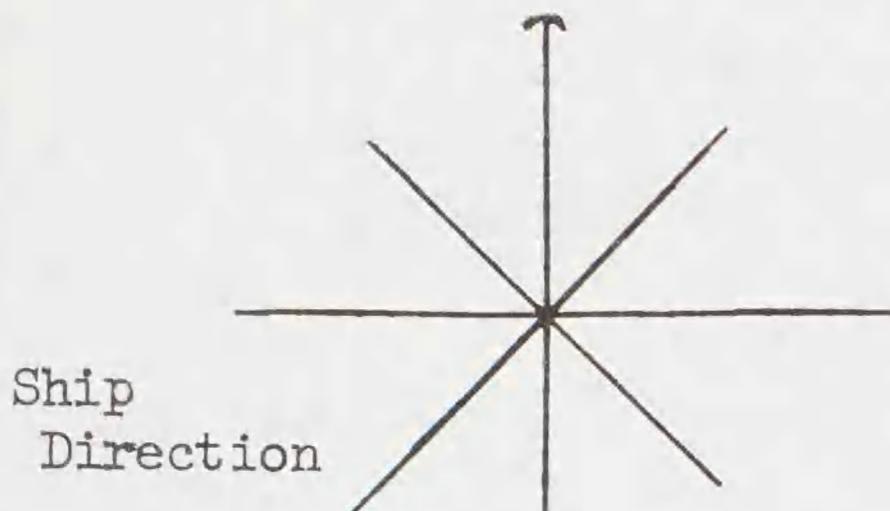
SPECIMEN

or

Date 3 Dec 1917  
Pg. # 2

TIME SPECIES # DIR. BAND NO. REMARKS

0805	Pm gogn	1-		SAd. Intermediate shore
25	R. Phal	1a-	ee	
27	Fulmar	1-	ee	
32	R. Phal	25±5	ee	Davis
37	"	2-	ee	
38	Shear?	1-	ee	
42	R. Phal	6-	w	New Zealanders Pales. footed
46	" "	20±2	ee	
47	" "	3-	ee	
53	Fulmar	1-	ee	
54	R. Phal	3-	ee	DA
56	Phal. sp	1-	w	
0907	Sooty Shear	1-	ee	
37	" "	1-	ee	In shower
30	BFA	1-	ee	
35	coconut	1-	SE	Following white caps
38	R. Phal	1-	w	
42	BLIS	1-	ee	
0950	Phalarope	3-	NW	Imm
0956	Fulmar	1-	88	DA
1000				Long/Shear - if imm are in or if not - Water.
1000				Wester gulls & Herring gulls a bill
1015	Phalarope	4-	NW	Common - Califs. gone.
1016	Jerring gull	2-		Sitting on log - 1 Ad, 1 secad yr bird.
1017	Phalarope	17-		Sitting near & floating kelp.
1022	Black-bellied	1-	88	Dark water - far water. - Imm
1023	Herring gull	3-		Sitting. - 2 Ad, imm.
1025	Northern Phalarope	250±50	82	on water - near floating kelp mass.
1026	<del>Red</del> - <del>Black-bellied</del> gull.	2-	2	on Hold New phalaropes. - white wing patch & white on side face



Ship  
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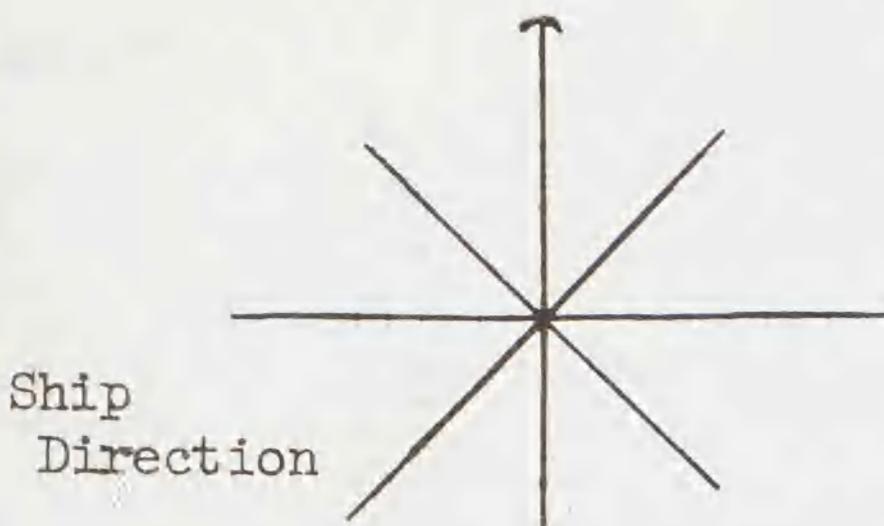
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Date 3 Dec 1967  
Pg. # 3

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1030	B FA	1-			Totally 2 - 1 w/k f / 1 w
1035	Rissa t.	1-	S		
1037	Phalarope	2-	SW		
1039	Sooty Shear	1-	SW		
1045					more than $180^{\circ}$ during an unusually steady period there were 28 gulls counted. The radius was on 1.5-2.0 miles. This reflects general abundance for the area - although they have not been recorded.
1048	N. Phal.	52	SE		flushed from H. H.
1050	"	7-	SW		
1051	Sooty Shear	1-	S		
1055	"	3-	N		
1058	N. Phal.	1-			into H. H. or 4 inches away from y. R. H.
09	"	4-	S		
1100	Leucophaea gull	1-	SE		Ad - f / young and down.
1110	Rissa	1-	S		imm - b/f ad on tail - but not yet feathered
1122	Calif gull	1-	SW		around bow - sl - defined



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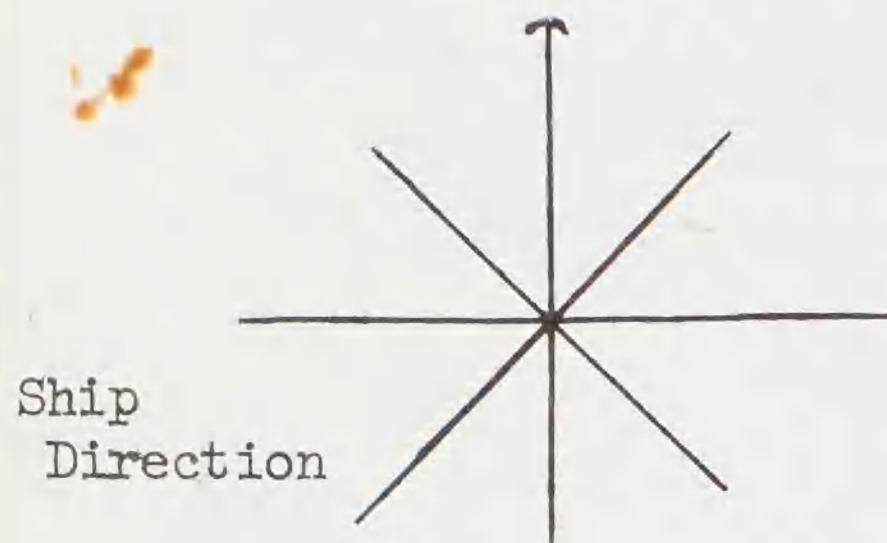
OBSERVERS:

Date 3 Dec  
Pg. # 4

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1125	Herring Gull	1-	SE	NE
1128				Have been in floating & esp patches
1130	N. Phalarope	2-		all Ar. - another app low - north.
1132	Phalarope	1-		on Rolt
1133	"	2-	SE SE	
Wind 15° E				
1135				
1137	Phalarope	1 ✓	SE	Can avoid to 270°
1138	Herring Gull	3		NE
1142	Phalarope	4 ✓	S	
1150	"	2 ✓		on H, 4
1153	Fulmar	1 ✓		
1158	Sooty Shear	1 ✓	E	Clear w/ the windings
1207	Fulmar	1 ✓		
15	Phalarope	2 ✓	SE	NE
25	Costly Shear	1 ✓	SW	NE H2O
27	Fulmar	1 ✓	SE	
28	Phalarope SP	1 ✓	SE	
30	Fulmar	2 ✓	SE	NE H2O PK
33				
46	BFA	2 ✓	SE	5/2 cm white 1 ca 40' flaps
1305	Rino A.	1 ✓	W	
106	W footed Shear	1 ✓	SE	like Discovery tail with white bill. P. carmineus
10	R H	✓	SE	NE H2O
12	Phalarope SP	10+ ✓	SE	
		32		



Ship  
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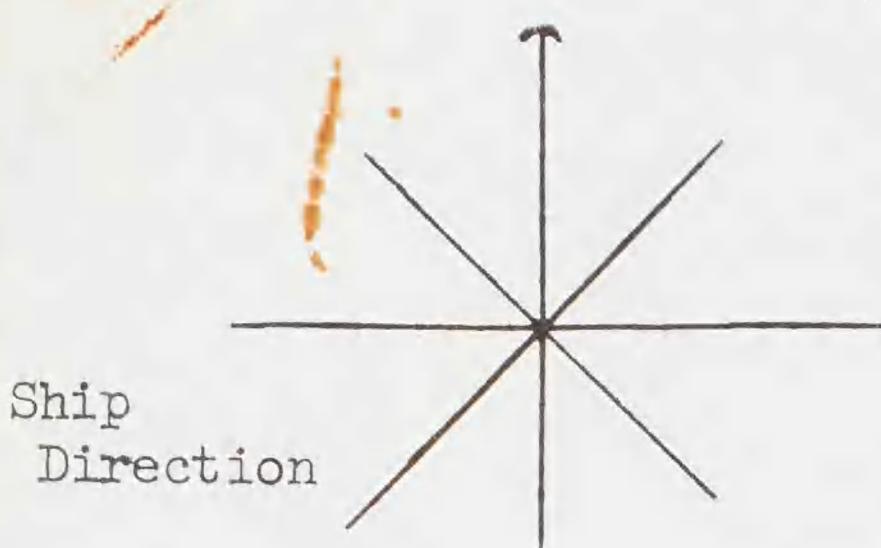
OBSERVERS:

SPECIMEN

or

Date 3 Dec 67  
Pg. # 5

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1316	R #	1 ✓	or	000H2	0
20	BFA	(3) ✓	or		February
20	H. Gull	15 ✓	or		" Mosty Ad
27	Loon sp	1 ✓	SE		
41	Fulmar	1 ✓	or		
43	WRSP	1 ✓	or		
44	Fulmar	1 ✓	or		DK
FJ	45 LWRSP	20±? ✓	or		Feeding - Albatrosses landed + Frigates also
	50 Fulmar	1 ✓	or		
	"	1 ✓	or		
	56 "	1 ✓	or		
	1400 Black Ternstone	1 ✓	or		
	01 N. Phalarope	1 ✓	SE		
	05 BL15	1 ✓	or		
06	BFA	1 ✓	W		
08	St. Pet	(4) ✓	or		
11	Jacq SP	1 ✓	or		
1426	BFA	2 ✓	E		
1426	Sooty Shear	1 ✓			Total 5
1432	"	1 ✓	S		Not lined flight. <u>1435</u> - same
1456					bird flew west of the world
					Dall Porpoise (15) approached
					ship within 200 meters. Some fast
					water surfing as observed earlier.
1430-1445					assorted things & small - sea cont. determining
1455	WRSP	1 ✓			
1504	Pomarine	1 ✓			Lucks - pelagic worn & bleached to near
1506	WRSP	1 ✓	88		worn.
1507	"	1 ✓	881		st. Dark pho
1515	WV	1 ✓	888		



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Date 3 Dec  
Pg. # 6

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1516	Fulmar	18			DK
1521	Sooty Shear	2 ✓	as		
1530	"	2 ✓	W		by other joined above two and were following about 200-300 meters off port beam. Have been doing so for 15± min.
1545					Ca 24 Herring gulls following. They also off port beam. Terminized abnormal this off plan & landed Ca 5° or water to port. - feeding.
1600					Two sooty shear still following.
1602	BA	✓			No 6 - 2 white 2 dark, 2 wh.
1610	WRSP	1 ✓	W		
1615					Sooties followed until now. Seen to have deserted.
44	Sooty Shear	1 ✓	SE		
55	LWRSP	2 ✓	SE		
58	Sooty Shear	1 ✓	SE		
1700					Sunset close

4 Dec

BFA - 24

( $\frac{16}{12}$  dk ++)

LA - 1

Sooty Shear - 2

Phalarope - 4

R. Phal - 4

W RSP - 7

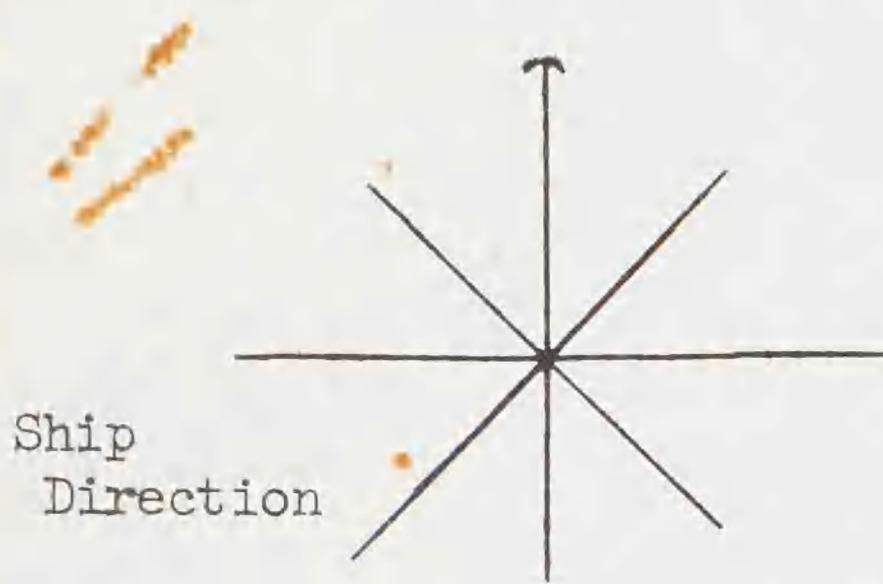
E-T Pet - 1

Herring Gull - 1 1st yr

Herring Gull - 1 2nd

45

SR-55 - Sect 1



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Date 4 Dec  
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0716					SR - bay S also
0720	Sooty Shear	1 ✓	S		BFA - 3 = (W E, 1 DK, 1 unk)
0724	Sooty Shear	1 ✓	S		
0745	BFA	1 ✓			
0755	Phalarope	4 ✓	SE		W. & following
0802	LWRSP	2 ✓	SE		
0815	BFA	4 ✓			Total 8.
0915	LA	1 ✓			
30	Red Phal	1 ✓	NE		Following
35	G-W Gull	1 ✓	NE		Following Turn - 1 S E
47	F-t Petrel	1 ✓	SE		
50					cc to S
1003	LWRSP	1 ✓	cc		
35	R. Phal	1 ✓	cc		
37	" "	2 ✓	NE		
1107	LWRSP	1 ✓	cc		
1405					cc to E
1430	BFA	17 ✓	3		
	LA	1 ✓	3		Following = 12 DK R - 1 LR
1555	LWRSP	2 ✓	cc		ad following
1606	H. Gull	1 ✓	cc		
1613	G-W Gull	1 ✓	cc		Following 1st year
1630	BFA	7			Total 24 following + 1 Laysan
1703	LWRSP	1 ✓	cc		
1720					16 dk 2 L +
					55 - place obs.

5 Dec

~~Longtail~~ Sabot.

BFA 2

Herring gull 15 (3 ad ♂ 12 182 gr birds)

Stom Pet 1

W RSP 5

Red Phal 2

Sooty Shear 2

Coots Pet 2

Shear Pet 1

Arctic Lnm ①

Phalarope sp

Fulmar

B L Kittiwake

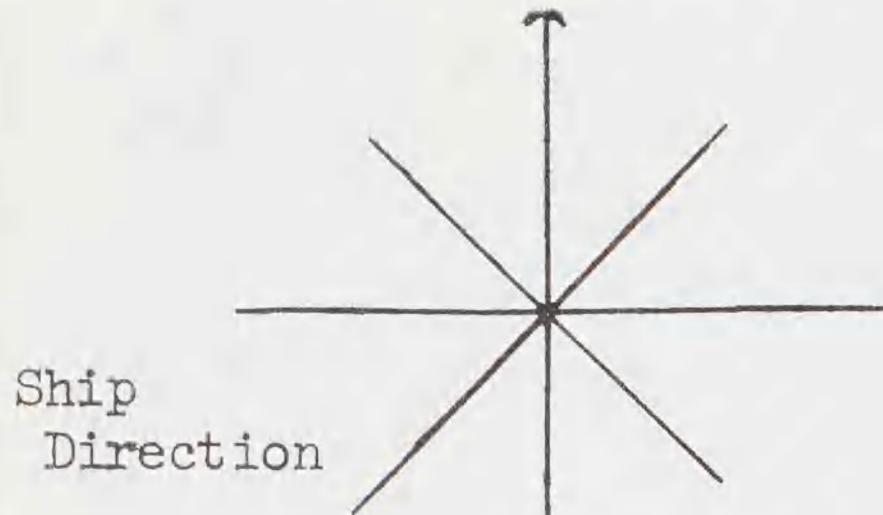
R-T Lnm

Fahey sp.

GW Gull

Xanth murrelet

1	6	16
4	55	70
17	244	263(-1)
2426	38	56(-3)
2	2	2
1	1	3
1	1	1
12	12	12 (-2)
1	1	1
1	1	1
8	8	8
1	1 (244)	1 (-1)
3	3	3 (-1)
		443



Ship  
Direction

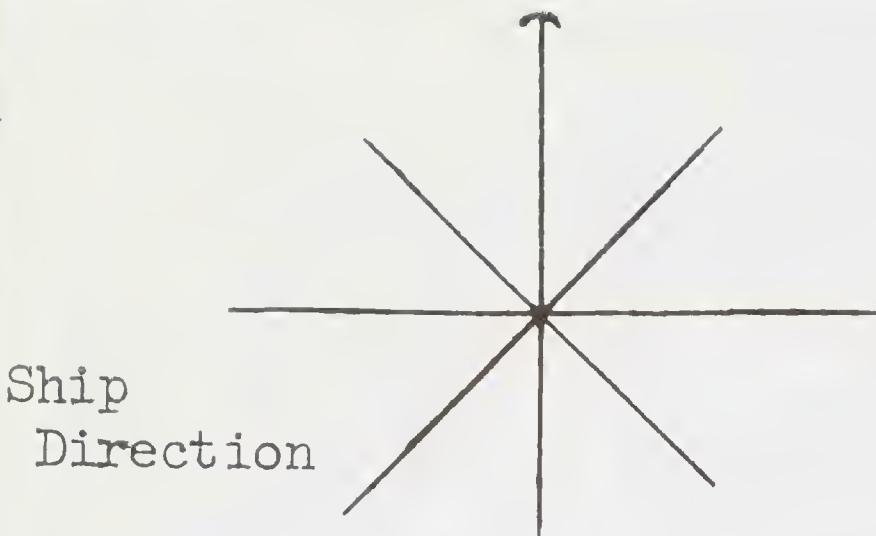
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Date 5 Dec 67  
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TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0700					Sunrise begin observations
05	H Gull	4	SE		
	BFA	1	SE		
17	H Gull	9	SE		
30	BFA	2	SE		
37	SP?	1	SE		
0805	Leach's SP	1	SE		
25	" "	1	SE		
38	" "	1	SE		
53	H Gull	1	SE		
56	" "	1	SE		
0906	L A	15	SE		
16	R. Phal	1	SE		
25	Sooty Shear	1	NE		
31	" "	1	SE		
31	Leach's SP	1	SE		
0946	Ki				
0950	WRS P	1	SE		Killer whale 1 only
0954	Phalacro	1	SE	888	14-18 ft. Dorsal ca 2.5 ft.
	no.				Saddle of Dorsal shrouded well. Blows not well defined, only small button way.
1010-1025					- M O B - Drill
1020					B E S - 2 DK 1 Lt
1045	Cook's Petrel	2	SE	888	For off, identification more by behavior than normal. white underswings & belly ventral pterygia. mantle light gray. Behavior: short glides with little to moderate climb, turning blowing - shallow - flaps and gliding against air flow than other small pterodroma
1048	Slantbill	1	SE	5	Prob Sooty Shear



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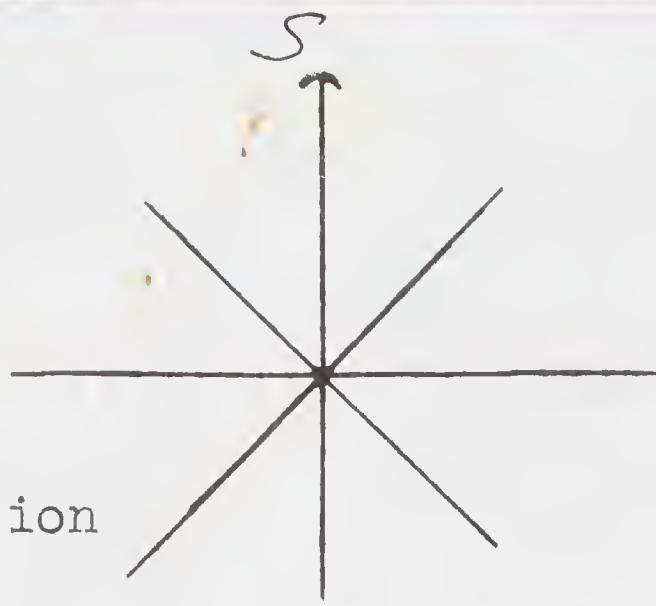
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Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1056	Arctic Loon	10	888		Fl ew around for some time. Bill angle could not be seen. Angle of wing to body in flight agreed with arctic. However the chance of occurrence of a G. stellata here is more probable than <u>G. arcticus</u> so we give it a reliability of 2.
1059	Sooty Shearwater	11	W		
1110	Phalarope	12	888		
1120	<del>Birds</del>	2*	888		Procellarioids - Rel 2
1127	Phalaropes	6			on H <sub>2</sub> O near patch of floating macroalgae
1130	"	3	888		
1132	Fulmar	13	888		DK. Rel 2 - Could have been Sooty
1140	LA	14	ee		
40	Phalarope sp.	15	NE		
48	Sooty Shear	16	E		but was very slow, probably feeding.
1200	R. Phalarope	2*	ee		on H <sub>2</sub> O
03	BLK	17	W		Ad
05	R. Phal	18	ee		off H <sub>2</sub> O
10	" "	4	SE		
12					
13	R. Phal	6	ee		cc to S
15	BFA	4	ee		on H <sub>2</sub> O by log
16	Sooty Shear	1	SW		
17	" "	2	SW		
18	Phal sp	1	S		
19	R. Phal	1	ee		
20	Sooty Shear	1	ee		
23	" "	1	SW		on H <sub>2</sub> O Next to bulk
24	R. Phal	1	SW		
25	Sooty Shear	6	ee		
27	R. Ch. Loon	1	ee		
28	Sooty Shear	10	SW		circling ships
29	R. Phal	1	SE		
30	Sooty Shear	3	ee		
32	R. Phal	1	ee		landed on H <sub>2</sub> O

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Date 5 Dec 67  
Pg. # 3

SPECIMEN  
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TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF 1237	H. Gull Jaeger sp Sooty Shear	35±5 3 20±5	2	ee	Mostly Ad all together feeding & moving to N.W. - ride over a school of fish moving that direction
40	" "	1 ✓	5		
41	R. Phal	3 ✓	SW		
44	" "	1 ✓	ee		
46	Phal sp.	1 ✓	SE		
47	" "	1 ✓	ee		
51	Sooty Shear	1 ✓	ee		
1309	R. Phal	2 ✓	ee		
10	" "	1 ✓	S		
11	Sooty Shear	2 ✓	S		
14	Phal sp	2 ✓	ee		Probability Red
sec 3	R. Phal	200+	ee		
16	R. Phal	200+	ee		
18	Sooty Shear	1 ✓	ee		on H <sub>2</sub> O in long thin lines
19	R. Phal	25+ ✓	ee		
24	" "	5 ✓	SW		on H <sub>2</sub> O
FF 35	H. Gull Jaeger sp Sooty Shear	20+ 5 ✓ 10+ ✓	2	ee	Toward SSW 15°
↓ 1415					All together feeding & moving N like flock Rabone
sec 6	BFA	6 ✓	ee		shift in
32	Phal sp	2 ✓ ✓	ee		on H <sub>2</sub> O 1 white rump / rest dark
42	R. Phal	1 ✓	ee		off H <sub>2</sub> O
47	Sooty Shear	1 ✓	S		" "
49	" "	1 ✓	S		
1513	" "	1 ✓	S		
22	LA	1 ✓	E		
27	G-W Gull	1 ✓	ee		
1600					1st winter
15					SK. Front
47	LUR sp	1 ✓	ee		cc to W
in 5 x. off					
1420	Xantus murall	2			
1430	Laysan sp	—	C. 11	R. L. Brownell	
1440	Xantus murall	1			

6 Dec '67

BFA 10

LA 1

WRSP ~~216~~ 16

Sooty Shear 2

Leaving gull 1

Arr gull 1

Stom-pet 1

R Phal 1

5

2

10 (5)

1

21 (-2)

3 (-2)

1

1

1

3

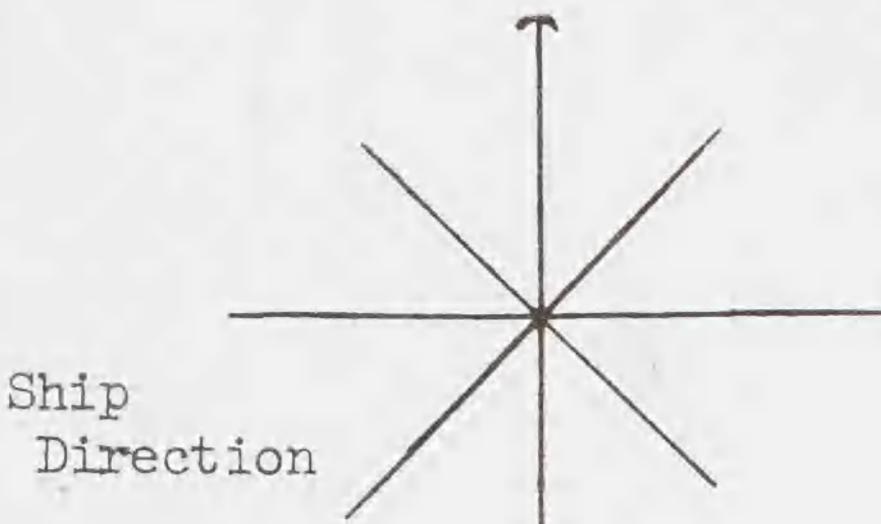
41

5

(5)

9 mi Sec 5

97 mi - 4



Ship  
Direction

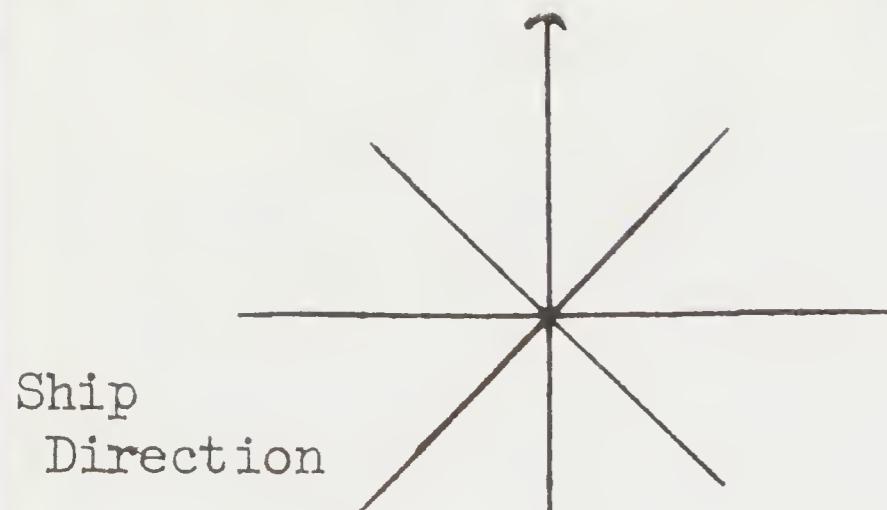
SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 6 Dec '67  
Pg. # 1

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0705					SR begin obs.
0707	BFA	2 ✓			following
0720	WRS P	1 ✓		888	
0725	Sooty Shear	1 ✓		N	
0727	WRS P	1 ✓		881	
0728	Sooty Shear	1 ✓		88	
0728	BFA	1 ✓			total of 3.
0742	"	2 ✓			" 5
0810	Laysan shear.	1 ✓		88	Hunting/flying ca 1.5 miles off
0905	Leach's SP	2 ✓		ee	Star board beam. Has not yet been attacked
0915	BFA Laysan Horn Gull	10 ✓			to ship. Following
35	LWRSP	1 ✓		ee	
1035	"	1 ✓		ee	
39	"	1 ✓		ee	
42	Gull Gull	1 ✓		ee	
1108	St Pet	1 ✓		ee	
10	<del>St. R. Phalarope</del>	1 ✓		ee	
22	LWRSP	1 ✓		ee	off H <sub>2</sub> O
1135					BFA - of 7 following 6 dark lines , 1 big light line
1200	Gull	2			(Horn Gull W 1st yr bills - light buffy gray)
1220	WRS P	3 ✓		888	
46	"	1 ✓		"	
51	"	7 ✓		ee	



Ship  
Direction

OBSERVERS:

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

Date 6 Dec  
Pg. # 2

TIME SPECIES # DIR. BAND NO. REMARKS

1255	1325					Passing through Squall. - L. to Rain.
1412	WRSP	2 ✓	68			
1436	P. Alouatta	2				Sooty ornal. Chased from No. 11. on No. 12.
1437	WRSP.	1 ✓	828			
1617	Sooty Shear	1	SW			
24	LWRSP	2 ✓	ceo			
1644						ccto S
1706						Sunset close ab.

Sec 1 3

7 Dec.

B.F.B. - 3 ✓

FT B.B. 1 ✓

Sooty Tern 3 ✓

Turnstone 8 ✓

H gull 7 ✓

B-w gull 1 ✓

Phalarope 1 ✓

E Phal 5 ✓

BLIC 1 ✓

Sec 4 6

Ru Phal 13 ✓

Phal. 3 ✓

W KSP 4 ✓

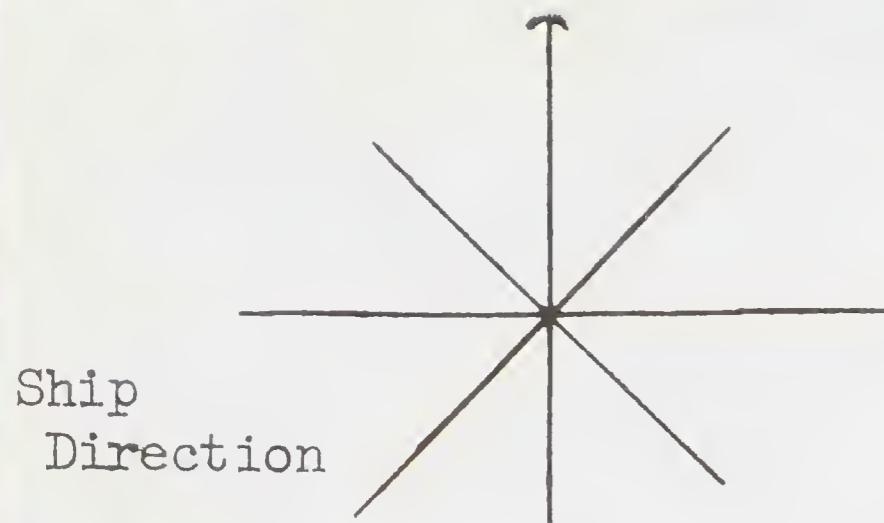
Stomach 1 ✓

Scop 4 ✓

Sooty Tern 1 ✓

Long Bill 1

B.F.B. - 3



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

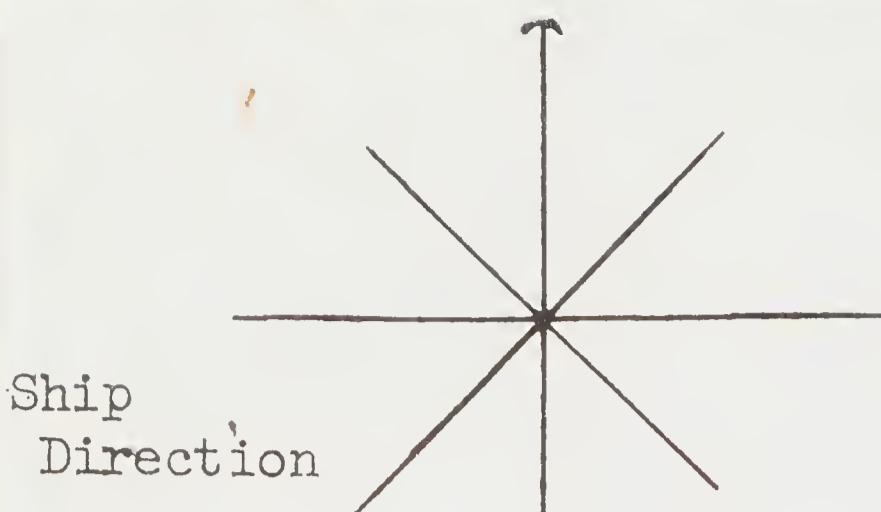
OBSERVERS:

Date Dec 7, 1967  
Pg. # 1

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0703					sunrise begins ab.
03	BFA	3 ✓	NE		Following
10	H. Gull	2 ✓	NE		1 Ad, 1st year
0805	G-W Gull	1 ✓	NE		
10	LWRSP	2 ✓	NE		1st yr.
34	Sooty Shear	1 ✓	SE		
34	LWRSP	3 ✓	SE		
51	Phalarope sp.	1 ✓	SE		Sat on H <sub>2</sub> O
0912	LWRSP	1 ✓	SE		
24	BLIS	1 ✓	SE		
40	F.T. Petrel	1 ✓	S		Imm
42	R. Phal	1 ✓	SE		
43	" "	2 ✓	SE		off H <sub>2</sub> O
53	" "	2 ✓	SE		
56	WRSR	2 ✓	SE		
56	WRSR	2 ✓	SE		
1030					begin mob rolls
1130					close mob "
1130	Henry Gull	5 ✓			ONADP SHEETS ENTERED
37	Sooty Shear	2 ✓	S		Total 7 (1 second yr: 4 1st yr. Birds)
46	R. Phal	1 ✓	E		
57	" "	4 ✓	E		
1207	Phal. sp.	2 ✓	E		
12	LWRSP	1 ✓	SE		Squall line moving in from NW
13	R. Phal	8 ✓	E		
15					up high
1305	Scallop sp.	1	S		close during rain squalls.
1320	DUCKL. sp.	1	S		OPEN white below - dark back - long neck - S <sup>and</sup> blue shark in 5 ft near floating
1352					Blue shark in 5 ft near floating
1410	Scallop Duck sp.	3 ✓	SE		steel "met cloud."
1419	S.P. sp.	1 ✓	SE		just seen, <del>met cloud</del> . Show some wing action.
1448	WRSR	1 ✓	SE		Nah <del>sooty</del> - head too large - neck too short.
1452	Stone Lnd	1 ✓	SE		Returned again. - Scallop - specific determination not possible.
1525	Sooty Shear	1 ✓	S		Possible, however bird alone and flying soft x H.H.
1526	WRSR	1 ✓	SE		
1527	Laysan Albatross	1 ✓	SE		Just seen. Full.



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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Date 7 Dec '67  
Pg. # 2

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

1532	WRSP	1	SWW		
1857					<i>Sunset close ab.</i>

Seabirds

8 Dec

1800 15

Fulmar 8

Sabine 3

Blue-faced 10

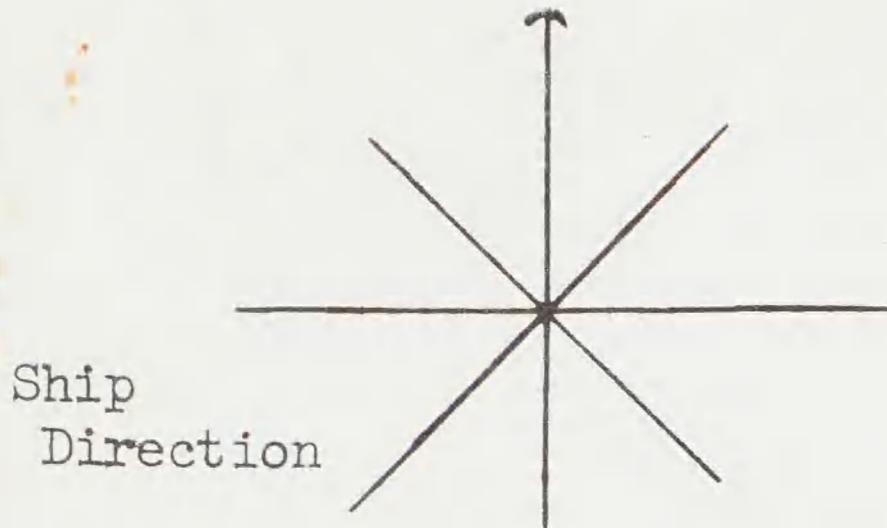
Bu. gull 2

St. L. gull - 2

UKSP 5

S. Pigeon 1

BL K. H. 1



OBSERVERS:

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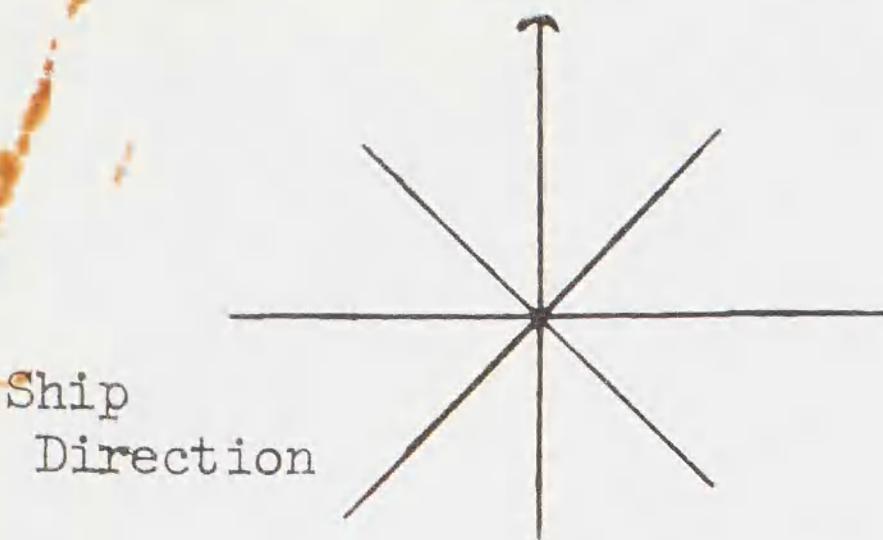
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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

Date 8 Dec  
Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1330	Fulmar	2	N		DK
1330	W.RSP	1	S		
1350	G.RSP	1	SE		
1410	"	1	SW		
26	"	1	SW		Following ship
1435	S.P. SP	1	SW		
1437	G-w Gull	2	SW		
43	BFA	14	SW		Following 1 <sup>st</sup> winter
43	Fulmar	1	SW		
1507	BFA	1	SW		Following DIS
17	Sooty Shear	1	SW		Imm
30	Fulmar	1	SE		
37	"	1	SW		Imm
1610	H Gull	10	SW		
	O-w Gull	1	SW		1 Ad of 15 <sup>th</sup> winter
	BFA	13	SW		15 <sup>th</sup> winter
1625	BFA	15	SW	388	
1645	W.RSP	1	SW		following whl ship - wake.
1705	Fulmar	1	SW		DK
1715					ca 35



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

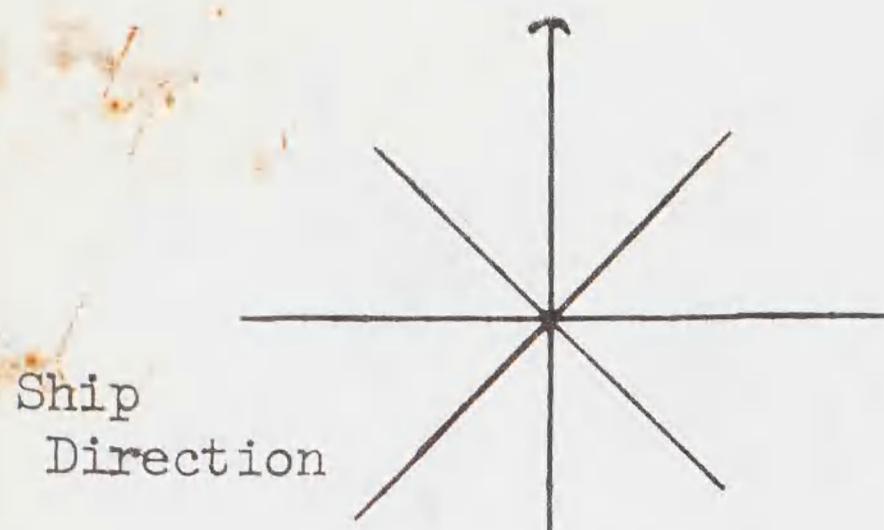
SPECIMEN  
or

OBSERVERS:

Poppendieck  
made tests to  
follow up  
open and

Date 8 Dec  
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0650					5R - bag in Oba.
0840	BFA	2 ✓			Following
0905	Herring gull	1 ✓			15+ yrs. (following ba)
1008	Fulmar	1 ✓			OK.
1010	BFA	5 ✓			
1010	Herring gull	4 ✓			3 or 12 yrs.; 1 ad. (following ba)
1012	D-W gull	1 ✓			First gr. (faul ba)
1014	Sooty shear	1 ✓	SE		
1020	BFA	101 ✓			Dusky gullage
	Herring gull	8-1 ✓			
	D. gull	1 ✓			
	Slender	2 ✓			Med - size gull about all dark w/ white at all TFL
1105	WRSP	1			
1122	Gulls	1 ✓			lit.
1230	Sooty Shear	1 ✓	SW		
1230	BFA	12 ✓			in gullbox



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

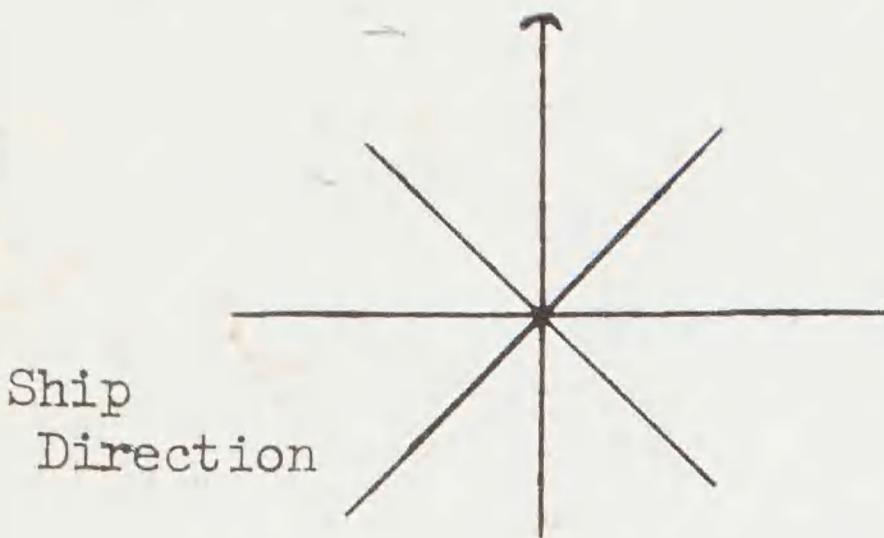
OBSERVERS:

Date 9 Dec 167  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

700	BFA	2 ✓	NE	Following	BFA - 9
722	Gull sp	1 ✓	N		LA - 1
35	BFA	3 ✓			Fulmar - 4 WRSPBd
40	"	3 ✓	NE	Full	Sooty Shearwater - 1
49	Fulmar	4 ✓	NE		Nphel - 1
50	BFA	2 ✓	NE	Following ship	Barln. 1
0800					RTTB - 1
05	N Phal	1 ✓	NE	Following ship, down	
37	LA	1 ✓	NE		
56	Sooty Shear	1 ✓	NE	Following ship	
1040	BFA	7 ✓	SE	All dark.	
1155	BFA	9 ✓	SE		
1225	BFA	7 ✓	SE		
1320	Fulmar	1 ✓	SE	Young Gull down 11 d/5. Banded left foot	
1400	RTTB	1 ✓	SE		DRG
1400	Fulmar	1 ✓	SE	Ad	
1525	WRSB	1 ✓	SE		
1714	BFA	5 ✓	SE		
1715	LA	5 ✓	SE	sunset	



Ship  
Direction

OBSERVERS:

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN

or

Date 10 Dec.  
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0747	Hgull	1	SE	Ad.
0835				Humpback - i.d. based on behavior jump out of the H2O 2X. - Bow several times
0900	BFA	1		
1130	Fulmar	1-	ee	Following
1155	RBTB	1-	240°	DK
1210				SPOTS OF BLAZE ON DORSAL SURFACE / TAIL FEATHERS white BILL COLOR NOT NOTED
1309	Herring Gull	1		2 OR MORE WHALES blowing on surface Spinn? 170°
1320	" "	2	ee	observed for 5 minutes AD.
1323				AD.
1328	H. Gull sp.	3	ee	Flying Fish
41	Fulmar	1-	e	1st year 2 Ad.
1425	H. Gull	3	ee	DK
1532	BFA	2	ee	1st winter (1) 2nd winter (2) Not Ad
1533	Herring Gull			white
1540	BFA	3	ee	3-4th year
1553	Herring Gull			1-Ad - at 1554 totalled 6 H Gulls
1645	BFA	4	ee	+ entered ADP sheets as
47	Pomarine Jaeger	1	e	following & flagged.
55	BFA	5	ee	abundant.
56				Sunset
				(put all or following on ADP sheet)
				1st w <sup>th</sup> 11
				2nd w <sup>th</sup> 11

Date 2 Dec.

Ship Tioga City (1158) <sup>LST</sup> Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 1645 Position: Lat. 33-26, Long. 118-06

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 62

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.	<u>1645</u>			
3.	<u>1135</u>			
	<u>5-10</u>			
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000	<u>32-43</u>	<u>117-30</u>	<u>32-39</u>	<u>117-11</u>		
1100			<u>46</u>	<u>20</u>		
1200	<u>33-07</u>	<u>117-43</u>	<u>33-04</u>	<u>117-30</u>		
1300			<u>00</u>	<u>36</u>		
1400	<u>33-20</u>	<u>117-58</u>	<u>33-07</u>	<u>117-43</u>		
1500			<u>13</u>	<u>50</u>		
1600	<u>33-26</u>	<u>118-06</u>	<u>33-20</u>	<u>117-38</u>		
1700			<u>33-24</u>	<u>118-05</u>		
1800						
1900						
2000						
2100						
2200	<u>33-46</u>	<u>118-41</u>				
2300						
2400						

Date 3 DecShip Tirga County (LST 1158)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0651Position: Lat. 34-30, Long. 120-55Sunset: Time 1702Position: Lat. 35-00, Long. 123-00

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 11055 m. in grid

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	<u>0651</u>	<u>220</u>	<u>34-30</u>	<u>120-55</u>	<u>1.8 h. at 4.7</u>
2.					
3.					
4.	<u>1702</u>	<u>220</u>	<u>35-00</u>	<u>123-00</u>	<u>16 h. at 3.1</u>
5.	<u>1137</u>	<u>220</u>	<u>34-38</u>	<u>121-12</u>	<u>3.1</u>

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400	<u>34-18</u>	<u>120-26</u>				
0500	<u>34-23</u>	<u>120-37</u>				
0600	<u>34-33</u>	<u>120-48</u>				
0700	<u>34-38</u>	<u>120-59</u>				
0800	<u>34-38</u>	<u>121-12</u>				
0900	<u>34-38</u>	<u>121-24</u>				
1000	<u>34-38</u>	<u>121-35</u>				
1100	<u>34-38</u>	<u>121-47</u>				
1200	<u>35-00</u>	<u>121-59</u>				
1300	<u>35-00</u>	<u>122-10</u>				
1400		<u>122-22</u>				
1500						
1600	<u>35-01</u>	<u>122-56</u>				
1700		<u>123-03</u>				
1800						
1900						
2000	<u>35-01</u>	<u>123-39</u>				
2100						
2200	<u>35-01</u>	<u>124-03</u>				
2300						
2400						

Date 4 Dec '67Ship Tioga City (1158)Cruise No. 11648  
35

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

1743  
23Sunrise: Time 0716Position: Lat. 35-02, Long. 125-55Sunset: Time 1723Position: Lat. 34-09, Long. 125-4533  
51  
37  
121

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 117

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

31  
56  
37  
117

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1. C/C	from 270-180	$30^{\circ}08'50''$	-4 Dec at Pt Birch
2. C/C	180-090 $\vartheta$	1400	9 Dec $\vartheta$ Cedar
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400	<u>35-02</u>	<u>125-14</u>				
0500						
0600	<u>35-02</u>	<u>125-39</u>				
0700		<u>52</u>				
0800	<u>35-02</u>	<u>126-07</u>				
0900	<u>35-22</u>	<u>21</u>				
1000	<u>34-55</u>	<u>126-35</u>				
1100	<u>45</u>	<u>32</u>				
1200	<u>34-34</u>	<u>126-31</u>				
1300		<u>31</u>				
1400	<u>34-11</u>	<u>126-31</u>				
1500		<u>17</u>				
1600	<u>34-10</u>	<u>126-04</u>				
1700		<u>50</u>				
1800	<u>34-08</u>	<u>125-55</u>				
1900						
2000	<u>34-09</u>	<u>125-36</u>				
2100						
2200						
2300						
2400	<u>34-10</u>	<u>124-32</u>				

Date 5 DecShip T.C. (1158)Cruise No. 1

LST

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0647Position: Lat. 34-04, Long. 122-32Sunset: Time 1657Position: Lat. 33-18, Long. 121-30

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 130 75 mi = 3Miles travelled from sunset to 2400 hours = 30 45 mi = 6

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1. 1614 - 00	from 180 to 270 at 5 hr		
2.	1200 - 00	from 090 to 180 at 12 hr west.	
3.			
4.	2000 1/2 270 & 260		
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400	<u>34-04</u>	<u>123-09</u>				
0500						
0600	<u>34-04</u>	<u>122-40</u>				
0700	<u>34-04</u>	<u>122-29</u>				
0800	<u>34-04</u>	<u>122-17</u>				
0900		<u>122-04</u>				
1000	<u>34-04</u>	<u>121-50</u>				
1100		<u>34-05</u>	<u>121-37</u>			
1200	<u>34-05</u>	<u>121-25</u>				
1300						
1400						
1500						
1600						
1700	<u>33-18</u>	<u>121-15</u>				
1800	<u>33-18</u>	<u>121-03</u>				
1900						
2000						
2100						
2200						
2300						
2400						

Date 6 Dec Ship Tioga City (L5<sup>+</sup> 1158) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-00<sup>51</sup>, Long. 124-37

Sunset: Time 1719 Position: Lat. 32-47<sup>47</sup>, Long. 126-30

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 106 9 mi in middle 5

Miles travelled from sunset to 2400 hours = 97 mi = 4

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>0745</u>	<u>c/c</u>	<u>26° - 27°</u>	
2.	<u>0322</u>	<u>c/c</u>	<u>26° - 26°</u>	
3.	<u>0615</u>	<u>c/c</u>	<u>26° - 27°</u>	
4.	<u>1645</u>	<u>c/c</u>	<u>27° - 180°</u>	<u>85°</u> <u>12°</u> <u>97</u>
5.	<u>1845</u>	<u>c/c</u>	<u>180 - 090°</u>	<u>10°</u> <u>90°</u> <u>7</u> <u>12</u>

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300	<u>33-00</u>	<u>123-10</u>				
0400						
0500						
0600						
0700	<u>31</u>	<u>127</u>				
0800	<u>32-31</u>	<u>124-48</u>				
0900	<u>31</u>	<u>125-59</u>				
1000	<u>32</u>	<u>125-10</u>				
1100	<u>33</u>	<u>125-21</u>				
1200	<u>32-52</u>	<u>125-31</u>				
1300	<u>33</u>	<u>125-43</u>				
1400						
1500						
1600	<u>32-52</u>	<u>126-21</u>				
1700						
1800						
1900						
2000	<u>32-28</u>	<u>126-13</u>				
2100						
2200						
2300						
2400						

Date 7 Dec Ship Tioga City (LST 1158) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-22, Long. 123-40  $090^{\circ}/12$   
 Sunset: Time 1700 Position: Lat. 32-29, Long. 121-32  $084^{\circ}/12$

Miles travelled from 0000 hours to sunrise = 0703-1140-54  
 Miles travelled from sunrise to sunset = 124  
 Miles travelled from sunset to 2400 hours = 1140-1700-70

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>1915</u> $\frac{1}{2}$	$090 - 180^{\circ} @$	<u>32-19</u>	<u>-121-00</u>
2.	<u>2300</u> $\frac{1}{2}$	$180 - 270^{\circ} @$	<u>32-29</u>	<u>121-32</u>
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700	<u>22</u>	<u>40</u>				
0800	<u>32-23</u>	<u>123-29</u>				
0900	<u>23</u>	<u>14</u>				
1000	<u>24</u>	<u>02</u>				
1100	<u>24</u>	<u>49</u>				
1200	<u>32-24</u>	<u>122-37</u>				
1300	<u>22</u>	<u>24</u>				
1400	<u>21</u>	<u>11</u>				
1500	<u>20</u>	<u>21-58</u>				
1600	<u>32-19</u>	<u>121-44</u>				
1700	<u>18</u>					
1800						
1900						
2000	<u>30-10</u>	<u>121-02</u>				
2100						
2200						
2300						
2400						

Date 8 DecShip Tioga City (LS+)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0656Position: Lat. 31° 23', Long. 122-40'

190/02

Sunset: Time 1708Position: Lat. 31° 21', Long. 124-25' W

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

## Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	<u>31-30</u>	<u>122-51</u>				
0900	<u>29</u>	<u>02</u>				
1000	<u>28</u>	<u>13</u>				
1100	<u>27</u>	<u>25</u>				
1200	<u>31-26</u>	<u>123-36</u>				
1300		<u>46</u>				
1400		<u>56</u>				
1500		<u>29-06</u>				
1600		<u>15</u>				
1700		<u>25</u>				
1800						
1900						
2000	<u>31-21</u>	<u>124-54</u>				
2100						
2200						
2300						
2400						

Date 9/12/66 Ship Tioga City (LST 1158) Cruise No. 1

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0712 Position: Lat. 30-46 Long. 126-31  
Sunset: Time 1709 Position: Lat. 30-47 Long. 124-41

Miles travelled from 0000 hours to sunrise = 2712 - 1615 - 93

Miles travelled from sunrise to sunset = 101 mi 1615 - 1709 - 8

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0712	at 0800		
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700	31-04	126-31				
0800	30-53	126-29				
0900	30-51	126-28				
1000	30-50	126-26				
1100	30-49	126-25				
1200	30-47	126-24				
1300		24				
1400		14				
1500	30-47	124-59				
1600						
1700						
1800	30-06	124-30				
1900						
2000	30-09	124-03				
2100						
2200						
2300						
2400						

958b-SI-MNH  
Rev. 9/28/66

1315 1476 - 30-48 125-28

7 Dec

52° + 12° - 3° T

22° - 5° - 0.76° - 5° -

Date 10 DecShip Tioga City (LST 7158)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0634Position: Lat. 30-52 Long. 121-31Sunset: Time 1656Position: Lat. 31-30, Long. 119-36Miles travelled from 0000 hours to sunrise = 8Miles travelled from sunrise to sunset = 109Miles travelled from sunset to 2400 hours = 27 miles

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

C/C from 090 to 061 af 0910 at Pt Oak

2.

3.

4.

5.

0910  
0654  
2.16

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600	<u>30-52</u>	<u>121-44</u>				
0700		<u>11-30</u>				
0800	<u>53</u>	<u>121-16</u>				
0900	<u>121-53</u>	<u>121-00</u>				
1000		<u>49</u>				
1100	<u>59</u>	<u>37</u>				
1200	<u>31-04</u>	<u>120-26</u>				
1300	<u>09</u>	<u>16</u>				
1400	<u>31-14</u>	<u>120-05</u>				
1500	<u>19</u>	<u>55</u>				
1600	<u>30-24</u>	<u>119-45</u>				
1700	<u>29</u>					
1800						
1900						
2000						
2100						
2200						
2300						
2400						

31 in.

PRELIMINARY REPORT

EASTERN AREA CRUISE #32

SAN DIEGO - Pt. Ash - SAN DIEGO

2 - 11 December 1967

EASTERN GRID SURVEY #18

3-10 December, 1967

Prepared

by

Robert L. DeLong (Grid)

T.J. Lewis (Nongrid)

Preliminary Report

EAC #32  
2 - 11 December 1967

EGS #18  
3 - 10 December 1967

Support Ship: USS Tioga County (LST 1158)

Cruise Itinerary: 2 December (0800) - depart San Diego  
3 December (1135) - Enter Grid at Pt. Ash  
10 December (0910) - depart Grid at Pt. Ash  
11 December (0900) - Arrive San Diego.

Personnel: R. L. DeLong (BIC)  
T.J. Lewis  
R.L. Brownell

Methods:

Diurnal observations were held from the bow, the forward gun mounts, and the lee wings of the bridge as weather conditions dictated. No nocturnal observations were conducted. The skiff was used for 2 hours on 7 December; one storm petrel was collected. No bathythermograph casts were made due to lack of equipment.

Cruise track & conditions:

The cruise track (Figure 1) was altered from the normal on two occasions due to heavy weather. The LST class ship is not a satisfactory observation platform in the survey area. The ship rolls severely while running in the trough; and pounds unceasingly while running into the sea. During this survey with prevailing seas from the west severe pounding was encountered on all westerly legs. As the ship pounded on a swell and entered a trough it "shuddered" with 60-90 vibrations per minute. The constant abnormal ship movement did not allow observers to use glasses for scanning, thus the numbers of birds observed were certainly fewer than normal. This bias may approach a 25 percent reduction in observability from the normal conditions.

Weather during the survey was affected by a number of various sized, fast moving fronts. Moderate to heavy seas prevailed through all but two days of the survey. Sea temperatures (recorded as sea water injection temperatures in the engine room) varied only two degrees in the survey area. These readings (if accurate) indicate a very flat temperature field throughout the Grid, resulting from seasonal cooling at the surface and consequent overturning and mixing in the upper layers. The coding and mixing may have been accelerated this month because of the several cold fronts passing through the area. The N.E. Pacific has been averaging 3-5° F. warmer than normal during this past summer and early fall. Rapid cooling would tend to bring temperatures back toward seasonal normal.

The distribution of albatross during this survey was not random. On 4 December 24 birds were recorded in section R in the northwest corner of the grid. This is the highest number of birds yet recorded on one day of observation. This also is the first time that the highest concentration of albatross has occurred in the northwest section.

It is to be noted that the two low counts in sectors S (north central) and Z (southeast) are in areas where little diurnal coverage was achieved. Since birds accumulate during the day, with highest numbers when garbage is dumped, a small linear mile coverage in an area in the morning hours will normally result in low numbers of albatross recorded.

Of the 39 birds examined for rump color, 34 (87 percent) were immatures (dark-rumped). Small numbers of white-rumped birds recorded indicate that the adult birds have returned to the breeding islands.

Fulmar (Fulmarus glacialis) Number observed: 24

0	1	11
0	0	0
4	8	0

All were dark phase birds. The presence of birds in the southern portion of the area was not expected. In January and February sightings in the southern section accounted for less than one percent of the observations.

On tenuous evidence I suggest that when these birds arrive on the wintering grounds they go through a "shuffle period", one of wandering in search of a relatively constant food supply. Thus, arriving birds would be well scattered until they finally settle in "winter ranges" (this may also hold for immature Black-footed Albatross during early winter). During this survey, however, their distribution was not random.

Sooty Shearwater (Puffinus griseus) Number observed: 79

2	6	57
1	5	4
1	3	0

Seventy two percent of the birds were recorded in the northeast corner of the grid. The birds were evenly distributed in other areas of the grid. No directional movement was recorded indicating that the "secondary migration" recorded on EGS 17 has terminated or reached a pause. Sooties were recorded in a feeding flock also containing Herring Gulls and Jaegers.

Leach's Storm Petrel (Oceanodroma leucorhoa) Number observed: 81

7	3	30
19	10	6
1	5	0

A concentration (37 percent of observations) was recorded in the northeast corner of the grid. Observing conditions were very poor for sighting storm petrels due to the heavy seas and ship's characteristics (discussed above). Thus the quantitative observations on this species are not indicative of actual numbers.

Fork-tailed Storm Petrel (Oceanodroma furcata) Number observed: 2

Single birds observed in sections R and V.

Red-tailed Tropicbird (Phaethon rubricauda) Number observed: 1

One adult bird flew about the ship for some minutes on 9 December at approximately  $30^{\circ} 48'N$  -  $125^{\circ} 29'W$  in section X of the grid.

Scaup sp. (Aythaya sp.) Number observed: 4

One lone bird and a group of three flew near the ship on 7 December at approximately  $32^{\circ} 21'N$  -  $122^{\circ} 12'W$  in section W.

Phalaropes Number observed: 328

8	0	293
1	6	19
1	0	0

The concentration (90 percent) was recorded in the northeast sector. Both Northern and Red Phalaropes were identified and recorded on the basis of mantle color. I am not sure that we were correct in those identifications of Northern Phalaropes. Thus I prefer to lump them as Phalaropes. Attempts will be made on EGS 19 to collect heavily in this area to resolve this species composition problem.

Jaeger sp. (Stercorarius sp) Number observed: 11

All were recorded in the northeast corner of the grid. One dark phase adult Pomarine Jaeger was identified. Jaegers were associated with one feeding flock containing Herring Gulls and Sooty Shearwaters; however, no parasitism was observed.

Glaucous-winged Gull (Larus glaucescens) Number observed: 5

All were first-winter immatures. These can be confused with Herring Gulls of the same age, but these observations are felt to be reliable.

Herring Gull (Larus argentatus) Number Observed: 114

The concentration recorded in the northeast corner is notable although some birds followed the ship as it entered the grid. The density of birds outside the grid near Point Ash was very high.

Black-legged Kittiwake Number observed: 4

This regular winter resident is still in low numbers.

Rhinoceros Auklet (Cerorhinca monocerata) Number observed: 3

Three birds were recorded in section T (the northeast section).

Xantus Murrelet (Endomychura hypoleuca) Number Observed: 3

None were seen from the ship, but on 5 December while in the skiff three birds were seen, all in section W.

## Synopsis of Eastern Grid Survey #18

During 732 miles of diurnal observations (68.6 hours) 73 albatross plus 676 birds of other species were recorded. Total linear density (birds per linear mile) was 1.02 with albatross, and 0.924 without albatross (see Black-footed Albatross species account). The density with albatross should be used if this parameter is to be of any value. Four sightings totaling 18 marine mammals were recorded in the Grid.

### Highlights:

- 1) Increasing numbers of immature Black-footed Albatross in Grid area.
- 2) Near random dispersion of winter resident; i.e., not yet showing limited distribution as was first noted in January of this year.
- 3) Presence of non-migrating Sooty Shearwaters.
- 4) North section continues to show highest density.

Two feeding flocks, one consisting of  $20\pm$  Leach Petrels; the other of  $20\pm$  Herring Gulls, 5 Jaegers and  $10\pm$  Sooty Shearwaters, were recorded in the northeast section of the Grid.

### SPECIES ACCOUNTS

#### Black-footed Albatross

Maximum counts:	December	3: 6
	4:	24
	5:	6
	6:	10
	7:	3
	8:	15
	9:	9
	10: (1)	
	Total	74
(Mean)	Average	9.2

Distribution by sector		
24	6	11
10	8	9
9	15	1

Albatross are omitted from the sectional breakdown analysis in Tables 2 and 3 because of confusion generated by birds following the ship from one sector to the next, and thus being counted twice.

The distribution of albatross during the survey was not random. - - - - - etc. - - - - - - - - -

TABLE 1. Summary of Diurnal Observation EGS 18, 3-10 December 1967.

	#Miles	# Hours	# Birds	#Species	Linear Density
3 December	55	5.5	111	12	2.018
4 December	117	10.1	45	8	0.384
5 December	105	10.2	436	13	4.152
6 December	106	10.3	41	7	0.386
7 December	124	10.0	57	10	0.359
8 December	97	10.2	47	7	0.484
9 December	101	10.0	23	8	0.227
10 December	27	2.3	2	2	0.074
Total	732	68.6	762	19*	1.040

\* Includes 74 Black-footed Albatross and 688 birds of other species.

TABLE 2. Sectional Abundance/Density, Eastern Grid Survey 18, 3-10 December 1967.

	(1) R	(2) S	(3) T	(4) U	(5) V	(6) W	(7) X	(8) Y	(9) Z	Total
Loon sp.			3/.027							3/.004
Fulmar		1/.045	11/.101							24/.033
Sooty Shearwater	2/.017	6/.272	57/.527	1/.010	5/.079	4/.04	1/.01	8/.076	3/.028	79/.108
Cook's Petrel			2/.018							2/.003
Shearwater/Petrel			4/.037					2/.019	6/.008	
"Leach's-type" Petrel	7/.060	3/.136	30/.277	19/.195	10/.158	6/.06	1/.01	5/.048	81/.111	
Fork-tailed Storm Petrel	1/.008				1/.016					2/.003
Storm Petrel sp.			2/.018			1/.01		1/.009		4/.005
Red-tailed Tropicbird							1/.01			1/.001
Scaup						4/.04				4/.005
Phalarope sp.	8/.068		293/2.712	1/.010	6/.095	19/.119	1/.011			328/.448
Shorebird			1/.009							1/.001
Jaeger sp.			11/.101							11/.015
Glaucous-winged Gull	1/.008			1/.010	1/.016			2/.019		5/.007
Herring Gull	1/.008	9/.409	85/.787	1/.010	7/.111			10/.095	1/.037	114/.156
Gull sp.			2/.018		1/.016		1/.011			1/.001
Black-legged Kittiwake								1/.009		4/.005
Xantus Murrelet						3/.30				3/.004
Rhinoceros Auklet			3/.027							3/.004
Totals	20/.170	19/.863	504/4.666	23/.237	31/.492	37/.370	9/.097	32/.305	1/.037	676/.924
Miles	117	22	108	97	63	100	93	105	27	732
Species	6	4	11	5	7	5	6	7	1	

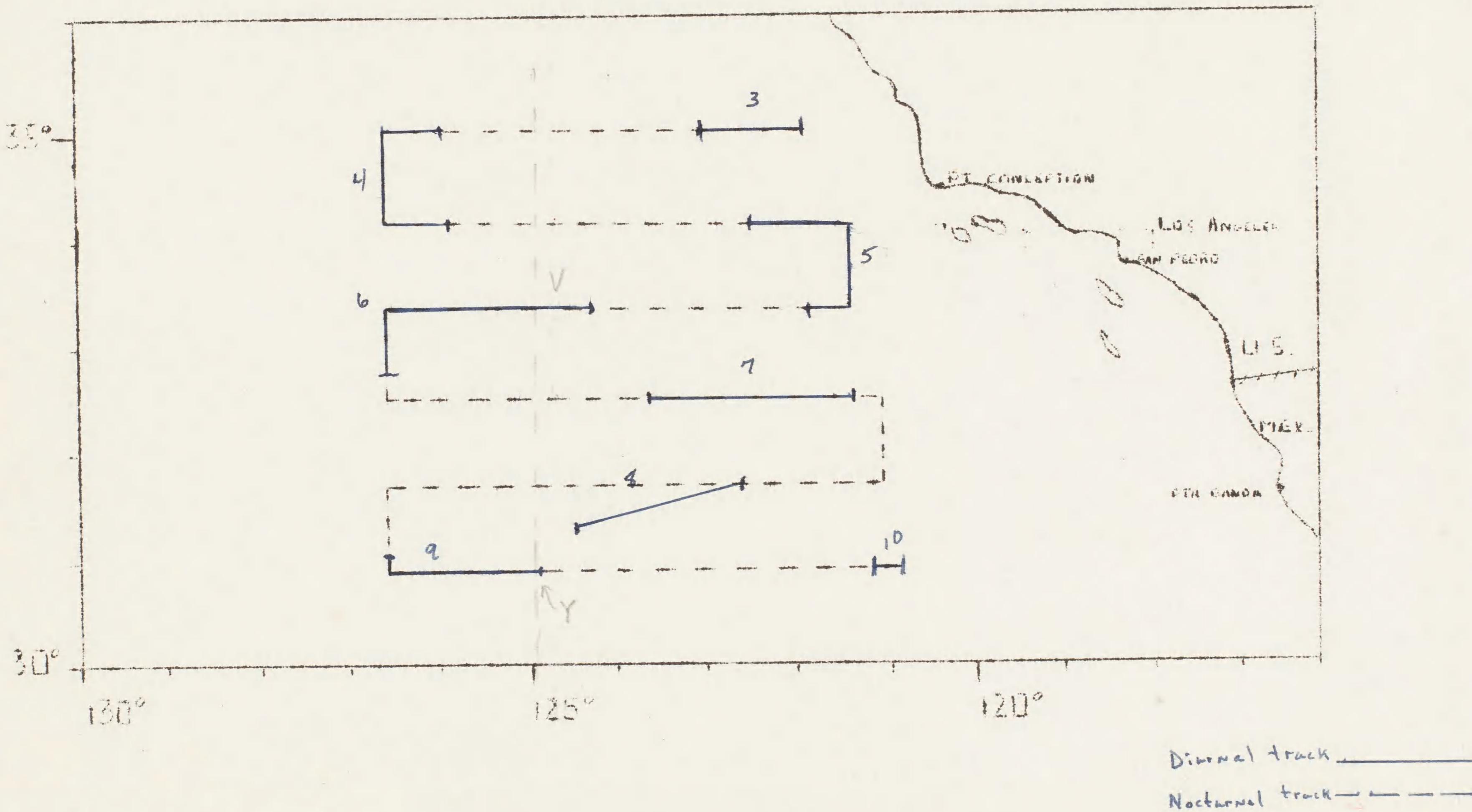
TABLE 3. North-South &amp; East -West abundance/density, EGS 18, 3-10 December 1967.

	N	C	S	E	C	W
Loon Sp.	3/.012			3/.013		
Fulmar	12/.049		12/.053	11/.047	9/.047	4/.013
Sooty Shearwater	65/.263	10/.038	4/.017	61/.260	14/.073	4/.013
Cook's Petrel	2/.008			2/.009		
Shearwater/Petrel	4/.016		2/.008	4/.017	2/.011	
Storm Petrel	43/.174	37/.142	7/.031	39/.166	20/.105	28/.091
Red-tailed Tropicbird			1/.004			1/.003
Scaup		4/.015		4/.017		
Phalarope sp.	301/1.22	26/.100	1/.004	312/1.33	6/.031	10/.032
Shorebird sp.	1/.004			1/.004		
Jaeger	11/.045			11/.042		
Glaucous-winged Gull	1/.004	2/.008	2/.008		3/.015	2/.006
Herring Gull	95/.384	8/.031	11/.048	86/.366	26/.136	2/.006
Black-legged Kittiwake	2/.008	1/.004	1/.004	2/.009	2/.011	1/.003
Xantus Murrelet		3/.012		3/.013		
Rhinoceros Auklet	3/.012	.		3/.013		
Total	543/2.19	91/.350	42/.186	542/2.31	82/.432	52/.169
Miles	247	260	225	235	190	307

Figure 1.

Cruise Track, EGS 18, 3-10 December 1967

## EASTERN PACIFIC OCEAN



### Non-Grid Observations

Observations were held on December 2 & 3 when proceeding to Pt. Ash from San Diego, and on December 10 when returning to San Diego from Pt. Oak. Observation conditions were fair to good on December 2 & 3 and poor on December 10.

On leaving Pt. Loma December 2 the ship was almost continually being passed by long lines of Brown Pelicans interspersed with a few cormorants. Later in the day many of these birds were seen feeding in company with Heerman Gulls in rather large flocks. During the few hours preceding arrival at Pt. Ash, several large flocks of Phalaropes were observed. These two outstanding features predominated the coastal trip north. The inbound leg on the 10th of December was rather dull except for the occurrence of the Red-billed Tropicbird.

TABLE 4. Summary of Non-Grid Observations - EAC 32.

	Dec. 2	Dec. 3	Dec. 10
Black-footed Albatross	-	2	5
Sooty Shearwater		8	
Pink-footed/New Zealand Shearwater		2	
Fulmar	1	4	2
Red-billed Tropicbird			1
Brown Pelican	627+		
Pelagic Cormorant	4		
Cormorant sp	58	1	
Red Phalarope		74	
Northern Phalarope		316	
Phalarope sp.		83	
California Gull	3	1	
Herring Gull		7	7
California/Herring Gull		50	
Western Gull	201+50		
Heermann's Gull	118+25		
Bonaparte's Gull	16		
Sabine's Gull	1		
Black-legged Kittiwake	1	4	
Gull sp	74		
Pomarine Jaeger	4	2	1
Parasitic Jaeger	1		
Jaeger sp	2		
Large Tern	2		
Loon sp	7		
Eared Grebe		2	
Common Murre	3		
Rhinoceros Auklet	1		
Small Alcid	1		
Total Birds	1,125	556	16
Miles	62	55	82
Hours			
Grand Total	1,697 birds		

Marine Mammals EAC 32 - December 2

Few mammals were recorded in the Grid. The low numbers recorded are thought to be due in part to the heavy sea and poor observing conditions.

1043 - A single Zalophus californianus was observed porpoising along with the ship.

1254 - Between 4 and 6 Lagenorhynchus obliquidens of two subgroups were observed in a stationary position near the surface (feeding?). When the ship approached they crossed the port bow swimming to the east. All the dolphins were swimming at a much slower rate than that usually observed for this species. After surfacing they dropped to only a few feet below the surface before returning again to the surface.

1320 - One Zalophus was noted floating at the surface. When the ship approached the sea lion swam off to the east.

1358 - Globicephala scammoni ( $40 \pm 10$ ) in 3 or 4 subgroups were noted to be in a semi stationary position on the surface. This schooling was similar to that called loafing group (Norris, 1958), except that dives of ca. 30-45 seconds were undertaken. They may have been feeding. Ages of the Pilot Whales were mixed. Large adult males, many medium-sized whales (300-400 cm), and calves or yearlings were noted.

1402 - Another Zalophus was noted porpoising.

1440 - A single Zalophus was floating near a small patch of Neocystis.

1610 - About  $75 \pm 15$  Globicephala in 4 or 5 subgroups, all seeming to be of medium size, were noted moving in a broad line south. This type of schooling is called traveling or hunting (Norris and Prescott, 1961).

No birds were noted with any of the above marine mammals today.

December 3 (Non-Grid)

0730 - About  $20 \pm 5$  Dall Porpoises were seen but did not come to ship. I.D. was based on speed and surfacing pattern (pushing much water ahead, etc.).

0735 - About  $15 \pm 5$  Dall Porpoise pushing a path of 6 to 8 feet of white water upon surfacing.

0750 - One Eumetopias jubata adult male (large) positioned with head out of water (nose-up) - Phocid - like behavior.

December 3 (Grid)

1233 Sector T - One Sperm Whale ca. 40 feet.

1456 Sector T - Fifteen Dall Porpoises approached within 200 meters of ship. Same fast water-pushing behavior upon surfacing.

December 5

0946 - One Killer Whale 14 to 18 ft. Dorsal ca. 2-1/2 ft. high. Saddle aft

December 5 Grid

0946 - (cont'd)

of dorsal showed well. Blows not well defined - only small bulbous spray.

December 10

0835 Sector Z - One Humpback Whale. I.D. based on behavior, jumping out of water 2 times.

References

Norris, Kenneth S. 1958. The big one got away. *Pacific Discovery* 11(5):3-9.

Norris, Kenneth S., and John H. Prescott. 1961. Observations on Pacific Cetaceans of Californian and Mexican Waters. *Univ. Calif. Pub. Zool.* 63(4):291-402.

TABLE II  
SYNOPTIC OBSERVATIONS

021600 10 03 1000 0

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD						
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Langitude (Degrees and tenths)		Total Cloud Amt. (Coded)	Direction (True) (00-36)		Present (00-99)	Past (0-9)										Indicator	Amount (Eights)	Type	Height			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
1600	SHIP	1	1	333	179	00	0	31	12	98	02	0159	170	090	0	230	00	8	0	0	50					
2200	SHIP	1	1	339	191	06	0	30	15	99	02	0159	150	0090	0	644	00	8	0	0	00					
0400	SHIP	1	1	343	204	12	0	28	20	99	02	0156	140	0090	0	744	00	8	0	0	00					
1000	SHIP	1	1	348	216	18	8	14	21	99	61	1159	157	44	71	6400	7	8	5	7	15					

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT						
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)				
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>				
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e							
0	53 13		1	31 21	1	00 00					2				ICE									62-62			
0	60 09		1	30 21	1	00 00					2				ICE									62			
0	57 11		1	28 21	1	00 00					2				ICE									62			
0	66 12		1	14 21	1	30 67	2								ICE									62			

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

2)

TABLE II  
SYNOPTIC OBSERVATIONS

031600 U TO 041800 U DEC 1967

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	WIND		Visi- bility (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD						
		Oc- ton (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)		Total Cloud Amt. (Coded)	Direction (True) (00-36)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0-9)	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
1600	SHIP	2	1	350	228	00	7	23	20	99	25 8	115 15	6 4 4	i	/	646 10	8	6 7	13								
	SHIP	2	1	350	241	06	0	33	13	99	02 0	125 15	0 0	/	0 0	644 00	8	0	/	99							
	SHIP	2	1	350	252	12	0	27	12	99	02 0	125 15	0 0 9	0	0	644 00	8	0	/	99							
	SHIP	2	1	350	265	18	5	02	21	99	01 2	139 17	9 2 6 6	1	4 4 4	00	8	5 8	45								

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT								
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48							
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub>	E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e						
0	54 14	1	23 22	1	28	5 7	2									ICE									58 60		
0	53 14	1	11 11	1	11	1 1	2									ICE									60		
0	53 14	1	27 21	1	31	4 5	2									ICE									62		
0	51 16	1	25 21	1	30	5 6	2									ICE									62		

REMARKS

EXAMINED

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS 04/1600 to 05/1800

3)

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP				TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Borometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD					
		Oc- ton- (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	Direction (00-36)			Speed (True) (Knots)	Present (00-99)		Past (0-9)	Borometer Corrected (Mb)			Amount of Low Cloud (0.9)	Type of C <sub>L</sub> (0.9)	Height of Low Cloud (0.9)	Type of C <sub>M</sub> (0.9)	Type of C <sub>H</sub> (0.9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb ond tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>o</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>a</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
SHIP	3	1	34.2	26.2	00	4	25	18	99	03	146	22	2	2	4	6	5	2	4	4	6	5	0	1	1	5	
SHIP	3	1	34.1	24.6	06	0	25	17	98	02	0	159	17	0	0	1	0	0	2	4	7	0	1	1	1	1	
SHIP	3	1	34.2	23.2	12	6	27	16	97	50	2	180	15	6	6	5	1	1	2	4	1	0	9	8	6	7	20
SHIP	3	1	34.1	21.7	18	2	35	20	98	01	0	217	24	2	1	6	0	9	2	4	2	17	8	2	8	45	5

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48						
0	(T <sub>s</sub> T <sub>s</sub> )	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e						
0	59	19	1	26	3	3	1	131	4	4	2				ICE						A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>			
0	50	14	1	1	1	1	1	1	1	1	2				ICE						Celsius	Celsius	Celsius			
0	52	14	1	1	1	1	1	1	1	1	2				ICE											
0	07	13	1	35	2	1	1	30	5	5	2				ICE											

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

0516004 TO 0610004

(4)

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD					
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0.9)	Type of C <sub>L</sub> (0.9)	Height of Low Cloud (0.9)	Type of C <sub>M</sub> (0.9)	Amount of Low Cloud (0.9)	Type of C <sub>H</sub> (0.9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	41	333	213	00	533	20	98	16	1	213	18	2	24	7	0	44	400	8	3	4	30					
SHIP	41	332	224	06	035	15	98	00	1	237	14	0	0	9	0	0	6	41	24	8	0	1	99			
SHIP	41	330	237	12	001	14	98	02	0	227	14	0	0	9	0	0	6	44	00	8	0	1	94			
SHIP	41	328	252	18	823	18	99	02	2	240	17	8	0	6	50	6	400	7	8	9	3	35				

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT				
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e			
0	53	14	1	01	2	2	1	33	4	4	2				ICE						64		
0	52	09	1	35	2	2	1	30	4	8	2				ICE						62		
0	51	08	1	01	/	/	1	33	/	/	2				ICE						60		
0	53	12	1	24	2	1	1	29	4	4	2				ICE						60		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

061600 u TO 071000 u

5)

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT) (Coded)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS				3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD						
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0-9)	Type of C <sub>L</sub>	Height of Low Cloud (0-9)	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	5 1	329	260	00	6	22	17	98	03	1	210	175	453	0	646	10			8	56	36					
SHIP	5 1	325	260	06	8	27	17	98	02	2	217	17	865	1	124400				8	87	35					
SHIP	3 1	324	240	12	4	28	15	98	02	1	200	173	65	1	124400				8	37	45					
SHIP	5 1	324	230	18	0	29	14	99	02	0	196	18	0090	1	124400				8	00	75					

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT				
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e			
0	03 13		1	21 21	1	34 42	2								ICE						60		
0	03 13		1	260	/	/	1	33	/	/	2				ICE						60		
0	20 18		1	28 21	1	29 32	2								ICE						60		
0	/	/	1	/	/	/	1	/	/	/	2				ICE						60		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

6)  
TABLE II  
SYNOPTIC OBSERVATIONS

071000Z TO 081000Z

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT) (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	CLOUDS				3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD									
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)		Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)		Amount of Low Cloud Type of C <sub>L</sub> (0-9)	Height of Low Cloud Type of C <sub>M</sub> (0-9)	Amount of Cloud Type of C <sub>H</sub> (0-9)	Indicator	Amount (Eights)	Type	Height									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
SHIP	6	1	323	319	00	8	33	30	98	15	1	186	18	8	7	1	4	0	2	4	6	17	8	6	7	10	
SHIP	6	1	318	210	06	6	33	28	98	02	2	193	15	6	7	4	0	0	4	4	2	20	8	6	7	10	
SHIP	6	1	328	223	12	9	33	26	98	02	2	183	14	9	6	5	1	6	4	0	0	7	8	9	7	20	
SHIP	C	1	315	233	18	6	02	20	98	02	2	163	15	6	6	6	2	1	6	4	4	0	0	8	6	7	29

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT				
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e	Celsius	Celsius	Celsius
0	00	14	1	01	32	1	33	3	4	2					ICE						60		
0	51	11	1	34	32	1	32	3	4	2					ICE						60		
0	57	09	1	33	11	1	33	1	1	2					ICE						62		
0	51	14	1	02	22	1	33	4	7	2					ICE						62		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

## SYNOPTIC OBSERVATIONS

081600Z TO 091000Z

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP				TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER	PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD					
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	Direction (True) (00-36)			Direction (True) (00-36)	Speed (True) (Knots)					15	16	17	18	19	20	21	22	23	Indicator	Amount (Eights)	Type	Height
		2	3	4	5	6	7	8	9	10	11	12	13	14	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	71	313	245	00	7	33	20	98	01	2	196	14	75	67	/	64	603	8	7640							
SHIP	71	313	253	06	7	33	28	98	02	2	224	15	01	11	/	68	227	8	9111							
SHIP	71	313	257	12	7	04	13	98	02	2	224	15	74	66	/	64	000	8	7840							
SHIP	71	308	263	18	7	01	20	98	01	2	244	18	75	61	/	74	310	8	7637							

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT		
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e			
0	52 09	1	33 3 4	1	31 4 7	2									ICE						60		
0	51 57	1	33 3 8	1	30 5 7	2									ICE						60		
0	51 12	1	04 //	1	11 11	2									ICE						60		
0	06 19	1	01 //	1	01 5 9	2									ICE						62		

REMARKS

EXAMINED

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

091600U TO 101000A

FIRST GROUP OF MESSAGE		Day of Week (1-7) (GMT)	POSITION OF SHIP				TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER	PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD								
			Oct- ant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	Direction (True) (00-36)			Direction (True) (00-36)	Speed (True) (Knots)					Present (00-99)	Past (0-9)	Barometer Corrected (Mb)	Amount of Low Cloud (0-9)	Type of C <sub>L</sub> (0-9)	Height of Low Cloud (0-9)	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
		Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	PPP	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>			
	SHIP	1	1	308	246	00	4	04	26	98	02	1	217	234	1	6	0	0	24203							8	5	8	50	
	SHIP	1	1	309	236	06	2	08	24	98	01	0	234	17	2	1	6	0	0	24203							8	2	8	50
	SHIP	1	1	309	218	12	1	06	20	98	01	0	234	18	1	1	6	0	0	24203							8	1	8	50
	SHIP	1	1	309	208	18	0	05	15	99	02	0	234	21	0	0	0	0	0	1	4	400				8	0	0	00	
		X	8																											

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	12 18		1	04 24	1	03 57	2								ICE					
0	00 14		1	08 11	1	04 11	2								ICE					
0			1	06 11	1	02 11	2								ICE					
0	08 11		1	04 21	1	33 34	2								ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		62
		62
		62
		62

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR